

REMARKS

The provisional double patenting rejection is moot in view of the cancellation of the claims on which it is based in copending Application No. 10/946,715.

Claims 1, 3, 5 - 7, 15 - 17, 19 and 20 have been rejected under 35 U.S.C. §102 as being anticipated by Bolton (U.S. 4,493,684). Bolton is not concerned with air-filled packing cushions, but rather with a method for separating plastic bags. It utilizes two sets of rollers which must be moved into an out of contact with the bags whenever a tear is desired.

Claims 2, 4, 8, 16 and 18 have been rejected under 35 U.S.C. 103 as being unpatentable over Bolton in view of Meschi (U.S. 5,230,453). Like Bolton, Meschi is not concerned with air-filled packing cushions, but rather with apparatus for cutting sheets or forms from a continuous web and stacking them together. The elements (125, 126) characterized by the Examiner as tear rollers turn only when it is desired to sever the material, and when they do turn, the material is completely severed rather than being only partially torn as in applicant's invention. When the material is traveling through the apparatus, the rollers are turned to a fixed position in which the material can pass freely between them.

Claims 1, 9, 11, 13, 14 and 21 - 23 have been rejected under 35 U.S.C. 103 as being unpatentable over Fuss et al. (U.S. 6,582,800) in view of Bolton. Claims 21 - 23 are being cancelled since their subject matter is being incorporated into the claims from which they depend, but reconsideration of the remaining claims is requested. While Fuss et al. may be concerned with the manufacture of air-filled packing cushions, it does not teach or even remotely suggest the pre-tearing of strings of such cushions to facilitate their subsequent separation in use. In fact, none of the references recognizes or suggests the desirability of doing so, and the only motivation for the pre-tearing of strings of air-filled packing cushions is in applicant's own disclosure and claims.

As amended, Claim 1 distinguishes over the references in calling for apparatus for making a packing material in the form of a string of air-filled packing cushions with rows of perforations extending across the material between the cushions which comprises means for feeding superposed layers of film material having longitudinally spaced, transversely extending rows of perforations along a path, means for injecting air between the two layers of film material, means for sealing the the layers of film material together to form air-filled cushions between the rows of perforations, and means engagable with the string of air-filled cushions for partially tearing the material along the rows of

perforations to facilitate tearing a desired number of the air-filled cushions from the string. This combination of elements is neither found in nor even remotely suggested by the references.

Claims 2 - 5 depend from Claim 1 and are directed to patentable subject matter for the same reasons as their amended parent claim.

In addition, Claim 2 further defines the means for partially tearing the material as comprising a tear roller having an arcuate section which periodically engages an edge portion of the material and a section adjacent to the arcuate section which remains out of driving engagement the material. Claim 3 depends from Claim 2 and further specifies that the means for partially tearing the material also includes a feed roller with a surface in continuous driving engagement with the material for feeding the material at a predetermined speed. Claim 4 depends from Claim 1 and further specifies that the tear roller is larger in diameter than the feed roller. Claim 5 likewise depends from Claim 1 and specifies that the tear roller rotates faster than the feed roller.

Claim 6, as amended, is directed to a method of making a packing material in the form of a string of air-filled packing cushions with rows of perforations extending across the material between the cushions, and distinguishes over the references in calling for the steps of feeding two superposed layers of film material having longitudinally spaced, transversely extending rows of perforations along a path, injecting air between the two layers of film material, sealing the layers of film material together to form air-filled cushions between the rows of perforations, and partially tearing the material along the rows of perforations to facilitate tearing a desired number of the air-filled cushions from the string.

Claims 7 - 8 depend from Claim 6 and are directed to patentable subject matter for the same reasons as their amended parent claim. In addition, Claim 7 further specifies that the material is torn by continuously engaging an edge portion of the material with a feed roller after the air-filled cushions are formed to feed the string of cushions at a predetermined speed and periodically exerting a abrupt pull on the material by engaging an edge portion of the material with a tear roller having an interrupted surface with an arcuate section which engages the material to exert the pull only during a portion of a rotation of the roller. Claim 8 depends from Claim 7 and further specifies that the arcuate section travels faster than the predetermined speed.

Claim 9 is directed to apparatus for making a string of air-filled packing cushions from an elongated strip of preconfigured film having a plurality of uninflated chambers

formed between two layers of the film with rows of perforations extending across the film between successive ones of the chambers, and distinguishes over the references in calling for means for injecting air between the layers to inflate the chambers, means for sealing the chambers to retain the air in them, means engagable with an edge portion of the film for feeding the film with the air-filled chambers along a path at a predetermined speed, and a tear roller having a surface that rotates faster than the predetermined speed and is intermittently engagable with the edge portion for exerting an abrupt periodic pull on the edge which produces a partial tearing along the rows of perforations between the inflated chambers.

Claims 10 - 13 depend from Claim 9 and are directed to patentable subject matter for the same reasons as their amended parent claim. In addition, Claim 10 further specifies that the surface of the tear roller has an arcuate section which periodically engages the edge portion of the material and a section adjacent to the arcuate section which remains out of driving engagement the material. Claim 11 further specifies that the means for feeding the film with the air-filled chambers at a predetermined speed comprises a feed roller with a surface in continuous driving engagement with the material. Claims 12 and 13 depend from Claim 11 and further specify that the tear roller is larger in diameter than the feed roller (Claim 12) and that the tear roller rotates faster than the feed roller (Claim 13).

Claim 14 is directed to a method of making a string of air-filled packing cushions from an elongated strip of preconfigured film having a plurality of uninflated chambers formed between two layers of the film with rows of perforations extending across the film between successive ones of the chambers, and distinguishes over the references in calling for the steps of injecting air between the layers to inflate the chambers to form the cushions, sealing the chambers to retain the air in the cushions, feeding the material along a path at a predetermined speed, and intermittently engaging an edge portion of the material with a tear roller having a surface that travels faster than the predetermined speed for exerting an abrupt periodic pull on the material which produces a partial tearing along the rows of perforations between the inflated chambers.

Claim 15 is directed to apparatus for pre-tearing a string of air-filled packing cushions having a plurality of longitudinally spaced air-filled chambers with rows of perforations extending across the material between successive ones of the chambers, and distinguishes over the references in calling for means engagable with an edge portion of the material for feeding the string of cushions at a predetermined speed, and a

continuously rotating tear roller having a surface that rotates faster than the predetermined speed and periodically engages the edge portion and exerts an abrupt pull on the material which produces a partial tearing along the rows of perforations between the cushions.

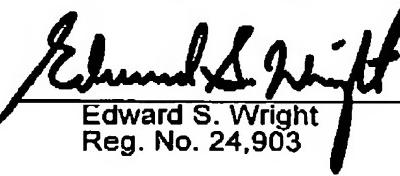
Claims 16 - 19 depend from Claim 15 and are directed to patentable subject matter for the same reasons as their amended parent claim. In addition, Claim 16 further specifies that the surface of the tear roller has an arcuate section which periodically engages the edge portion of the material and a section adjacent to the arcuate section which remains out of driving engagement the material. Claim 17 further specifies that the means for feeding the material at a predetermined speed comprises a feed roller with a surface in continuous driving engagement with the material. Claims 18 and 19 depend from Claim 17 and further specify that the tear roller is larger in diameter than the feed roller (Claim 18) and that the tear roller rotates faster than the feed roller (Claim 19).

Claim 20 is directed to a method of pre-tearing a string of air-filled packing cushions having a plurality of longitudinally spaced air-filled chambers with rows of perforations extending across the material between successive ones of the chambers, and distinguishes over the references in calling for the steps of: engaging an edge portion of the material with a feed roller to feed the string of cushions at a predetermined speed in a direction generally perpendicular to the rows of perforations, and intermittently engaging the edge portion of the material with a continuously rotating tear roller having a surface that travels faster than the predetermined speed and periodically engages the material to exert an abrupt pull on the material to produce a partial tearing along the rows of perforations between the cushions.

With this amendment, it is respectfully submitted that Claims 1 - 20 are all directed to patentable subject matter and that the application is in condition for allowance.

The Commissioner is authorized to charge any fees required in this matter, including extension fees, to Deposit Account 50-2975, Order No. A-75001.

Respectfully submitted,



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